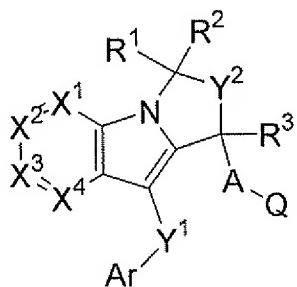


Amendment to the Claims:

Please amend Claims 1, 6, 15 and 20, and cancel Claims 3, 7 and 22-26 as follows.

Listing of Claims:

1. (Currently Amended) A compound having the formula I



I

and pharmaceutically acceptable salts and hydrates thereof, wherein:

A is selected from C1-3alkyl optionally substituted with one to four halogen atoms, O(CH₂)₁₋₂, and S(CH₂)₁₋₂;

Ar is aryl or heteroaryl each optionally substituted with one to four groups independently selected from Rg selected from phenyl, 2-, 3-, 4-chlorophenyl, 2-, 3-, 4-bromophenyl, 2-, 3-, 4-fluorophenyl, 3,4-dichlorophenyl, 2,3-dichlorophenyl, 2,4-dichlorophenyl, 2,5-dichlorophenyl, 2,6-dichlorophenyl, 3,5-dichlorophenyl, 3-chloro-4-fluorophenyl, 2-chloro-4-fluorophenyl, 4-chloro-2-fluorophenyl, 2-cyanophenyl, 4-methylphenyl, 4-isopropylphenyl, 4-trifluoromethylphenyl, biphenyl, naphthyl, 3-methoxyphenyl, 3-carboxyphenyl, 2-carboxamidophenyl, 4-methoxyphenyl, 3-phenoxyphenyl, 4-(4-pyridyl)phenyl, 4-methylsulfonylphenyl, 3-dimethylaminophenyl, 5-tetrazolyl, 1-methyl-5-tetrazolyl, 2-methyl-5-tetrazolyl, 2-benzothienyl, 2-benzofuranyl, 2-indolyl, 2-quinolinyl, 7-quinolinyl, 2-benzothiazolyl, 2-benzimidazolyl, 1-benzotriazolyl, 2-furanyl, 3-furanyl, 2-imidazolyl, 5-imidazolyl, 5-isoxazolyl, 4-isoxazolyl, 4-isothiazolyl, 1,2,4-oxadiazol-5-yl, 2-oxazolyl, 4-oxazolyl, 4-pyrazolyl, 5-pyrazolyl, 2-pyridyl, 3-pyridyl, 2-pyrazinyl, 5-pyrimidinyl, 2-pyrrolyl, 4-thiazolyl, 1,2,4-thiadiazol-3-yl, 1,2,5-thiadiazol-4-yl, 1,2,3-thiadiazol-4-yl, 1,2,5-oxadiazol-4-yl, 1,2,3-oxadiazol-4-yl, 1,2,4-triazol-5-yl, 1,2,3-triazol-4-yl, 3-thienyl, 1,2,4-triazol-5-yl, pyrrolo-pyridine, furo[3,2-b]pyridin-2-yl, thieno[2,3-b]pyridin-2-yl, 5(H)-2-oxo-4-furanyl, 5(H)-2-oxo-5-furanyl, (1H,4H)-5-oxo-1,2,4-triazol-3-yl, 4-oxo-2-benzopyran-yl;

Q is COOH,

one of X¹, X², or X³ or X⁴ is nitrogen and the others are independently selected from CH and C-Rg and Rg is selected from 1) C₁₋₆alkyl optionally substituted with one to eight groups independently selected from aryl, heteroaryl, halogen, NR^aR^b, C(O)R^a, C(OR^a)R^aR^b, SR^a and OR^a, wherein aryl, heteroaryl and alkyl are each optionally substituted with one to six groups independently selected from halogen, CF₃, and COOH, or 2) S(O)_nC₁₋₆alkyl, wherein alkyl is optionally substituted with one to six substituents selected from halogen, aryl, heteroaryl, OH, and OC(O)R^a;

X² is CH;

X⁴ is CH or C-Rg, where Rg is selected from 1) C₁₋₆alkyl optionally substituted with OR^a or 2) S(O)_nC₁₋₆alkyl;

Y¹ is S;

Y² is selected from (CR^dRe)_m and CR^d=CRE;

R¹ is selected from H, CN, OR^a, S(O)_nC₁₋₆alkyl and C₁₋₆alkyl optionally substituted with one to six groups independently selected from halogen, OR^a and S(O)_nC₁₋₆alkyl;

R² is selected from H and C₁₋₆alkyl optionally substituted with one to six halogen; or

R³ is selected from H and C₁₋₆alkyl optionally substituted with one to six groups independently selected from OR^a and halogen;

R^a and R^b are independently selected from H, and C₁₋₁₀alkyl, C₂₋₁₀alkenyl, C₂₋₁₀alkynyl, Cy and Cy-C₁₋₁₀alkyl, wherein said alkyl, alkenyl, alkynyl and Cy are optionally substituted with one to six substituents independently selected from halogen, amino, carboxy, C₁₋₄alkyl, C₁₋₄alkoxy, aryl, heteroaryl, aryl-C₁₋₄alkyl, hydroxy, CF₃, OC(O)C₁₋₄alkyl, OC(O)NRⁱR^j, and aryloxy; or

R^e is selected from C₁₋₆alkyl optionally substituted with one to six halogen, aryl and heteroaryl, wherein said aryl and heteroaryl are optionally substituted with one to three groups selected from halogen, OC₁₋₆alkyl, O-haloC₁₋₆alkyl, C₁₋₆alkyl and haloC₁₋₆alkyl;

R^d and R^e are independently H, halogen, aryl, heteroaryl, C₁₋₆alkyl or haloC₁₋₆alkyl;

R^f is selected from H, C₁₋₆alkyl, haloC₁₋₆alkyl, Cy, C(O)C₁₋₆alkyl, C(O)haloC₁₋₆alkyl, and C(O)-Cy;

R^g is selected from

(1) halogen;

(2) CN;

- (3) C_{1-6} alkyl optionally substituted with one to eight groups independently selected from aryl, heteroaryl, halogen, NR^aR^b , $C(O)R^a$, $C(OR^a)R^b$, SR^a and OR^a , wherein aryl, heteroaryl and alkyl are each optionally substituted with one to six groups independently selected from halogen, CF_3 , and $COOH$,
- (4) C_{2-6} alkenyl optionally substituted with one to six groups independently selected from halogen and OR^a ,
- (5) Cy
- (6) $C(O)R^a$,
- (7) $C(OR^a)$,
- (8) $CONR^aR^b$,
- (9) $OCONR^aR^b$,
- (10) OC_{1-6} alkyl, wherein alkyl is optionally substituted with one to six substituents selected from halogen, aryl, heteroaryl, OH and $OC(O)R^a$,
- (11) $O-Cy$,
- (12) $S(O)_nC_{1-6}$ alkyl, wherein alkyl is optionally substituted with one to six substituents selected from halogen, aryl, heteroaryl, OH, and $OC(O)R^a$,
- (13) $S(O)_nCy$,
- (14) $NR^aS(O)_nR^b$,
- (15) NR^aR^b ,
- (16) $NR^aC(O)R^b$,
- (17) $NR^aC(O)OR^b$,
- (18) $NR^aC(O)NR^aR^b$,
- (19) $S(O)_nNR^aR^b$,
- (20) NO_2 ,
- (21) C_{5-8} cycloalkenyl,

wherein Cy is optionally substituted with one to eight groups independently selected from halogen, $C(O)R^a$, OR^a , C_{1-3} alkyl, aryl, heteroaryl and CF_3 ;

R^i and R^j are independently selected from hydrogen, C_{1-10} alkyl, Cy and $Cy-C_{1-10}$ alkyl; or R^i and R^j together with the nitrogen atom to which they are attached form a ring of 5 to 7 members containing 0-2 additional heteroatoms independently selected from oxygen, sulfur and $N-R^f$;

Cy is selected from heterocyclyl, aryl, and heteroaryl;

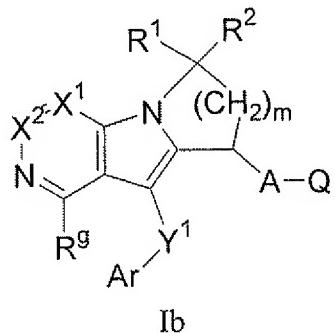
m is 1 or 2; and

n is 0, 1 or 2.

2. (Original) A compound of Claim 1 wherein A-Q is CH₂CO₂H.
3. (Canceled)
4. (Canceled)
5. (Canceled)
6. (Currently Amended) A compound of Claim 1 wherein one of X¹, X² and X³ is nitrogen and the other is ethers are CH, X² is CH₂ and X⁴ is C-S(O)_n-C₁₋₆alkyl or C-C₁₋₆alkyl optionally substituted with OR^a.
7. (Canceled)
8. (Original) A compound of Claim 1 wherein Y² is selected from CH₂ and CH₂CH₂.
9. (Original) A compound of Claim 1 represented by the formula Ia:
- Ia
- wherein X² and X³ are independently CH or C-Rg, A, Ar, Q, Y¹, R¹, R², m and Rg are as defined in Claim 1.
10. (Original) A compound of Claim 9 wherein X² and X³ are each CH, R¹ and R² are each H, and A-Q is CH₂CO₂H.

11. (Original) A compound of Claim 9 wherein Y¹-Ar is S-phenyl optionally substituted with 1 or 2 groups independently selected from halogen, C₁-₆ alkyl and trifluoromethyl.

12. (Original) A compound of Claim 1 represented by the formula Ib:

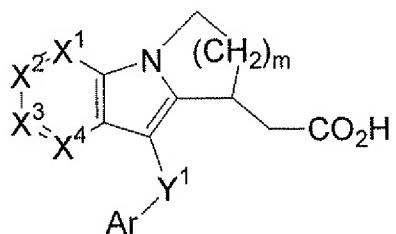


wherein X¹ and X² are independently CH or C-Rg, A, Ar, Q, Y¹, R¹, R², m and Rg are as defined in Claim 1.

13. (Original) A compound of Claim 12 wherein X¹ and X² are each CH, R¹ and R² are each H, and A-Q is CH₂CO₂H.

14. (Original) A compound of Claim 13 wherein Y¹-Ar is S-phenyl optionally substituted with 1 or 2 groups independently selected from halogen, C₁-₆ alkyl and trifluoromethyl.

15. (Currently Amended) A compound of Claim 1 represented by the formula Ic:



Ic

wherein one of X¹, X² and X³ is N and the others are each is CH, X⁴ is CH, X⁴ is CRg, m is 1 or 2, and Ar, Y¹ and m are as defined in Claim 1.

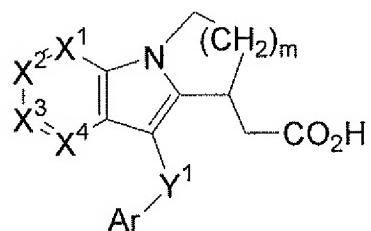
16. (Original) A compound of Claim 15 wherein Ar is phenyl optionally substituted with 1 or 2 groups independently selected from halogen, C₁-3alkyl and trifluoromethyl.

17. (Canceled)

18. (Original) A compound of Claim 15 wherein X⁴ is selected from C-S(O)_n-C₁-6alkyl and C-C₁-6alkyl optionally substituted with OR^a.

19. (Previously Presented) A compound of Claim 15 wherein Y¹-Ar is S-phenyl optionally substituted with 1 or 2 groups independently selected from halogen, C₁-6alkyl and trifluoromethyl; X¹ and X² are each CH, X³ is N, m is 1 or 2, and X⁴ is C-SO₂-C₁-6alkyl or C-C₁-6alkyl.

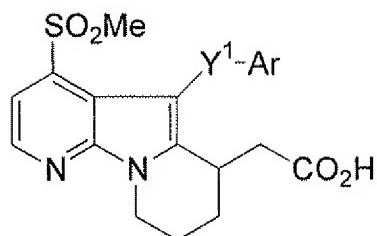
20. (Currently Amended) A compound of Claim 1 selected from:



X1	X2	X3	X4	Ar	Y1	m
N	CH	CH	C(SO ₂ CH ₃)	4-Cl-Ph	S	2
N	CH	CH	C(SCH ₃)	4-Cl-Ph	S	2
N	CH	CH	C(SO ₂ CH ₃)	3,4-diCl-Ph	S	2
N	CH	CH	C(SO ₂ CH ₃)	4-Br-Ph	S	2
CH	CH	N	C(SO ₂ CH ₃)	3,4-diCl-Ph	S	1
CH	CH	N	C(SO ₂ CH ₃)	3,4-diCl-Ph	S	2
N	CH	CH	C(SO ₂ CH ₃)	4-CF ₃ -Ph	S	2
N	CH	CH	C(SO ₂ CH ₃)	2-Cl-4-F-Ph	S	2
N	CH	CH	C(SO ₂ CH ₃)	2-naphthyl	S	2

X1	X2	X3	X4	Ar	Y1	m
N	CH	CH	C(SO ₂ CH ₃)	2,3-diCl-Ph	S	2
N	CH	CH	C(SO ₂ CH ₃)	4-CH ₃ -Ph	S	2
N	CH	CH	C(SO ₂ CH ₃)	Ph	S	2
N	CH	CH	C(SO ₂ CH ₃)	2,4-diCl-Ph	S	2
CH	N	CH	C(SO ₂ CH ₃)	4-Cl-Ph	S	2
CH	CH	N	C(SO ₂ CH ₃)	4-Cl-Ph	S	2
N	C(CH ₃)	CH	C(SO ₂ CH ₃)	4-Cl-Ph	S	2
N	CH	C(CH ₃)	C(SO ₂ CH ₃)	4-Cl-Ph	S	2
CH	C(CH ₃)	N	C(SO ₂ CH ₃)	4-Cl-Ph	S	2
C(CH ₃)	CH	N	C(SO ₂ CH ₃)	4-Cl-Ph	S	2
N	CH	CH	C(CH(CH ₃) ₂)	4-F-Ph	S	2
N	CH	CH	C(CH(CH ₃) ₂)	4-Cl-Ph	S	2
N	CH	CH	C(CH(CH ₃) ₂)	2,4-diCl-Ph	S	2
N	CH	CH	C(CH(CH ₃) ₂)	4-Br-Ph	S	2
N	CH	CH	C(CH(CH ₃) ₂)	2-Cl-4-F-Ph	S	2
N	CH	CH	C(CH(CH ₃) ₂)	3,4-diCl-Ph	S	2
CH	CH	N	C(CH(CH ₃) ₂)	4-F-Ph	S	2
CH	CH	N	C(CH(CH ₃) ₂)	4-Cl-Ph	S	2
CH	CH	N	C(CH(CH ₃) ₂)	2,4-diCl-Ph	S	2
CH	CH	N	C(CH(CH ₃) ₂)	4-Br-Ph	S	2
CH	CH	N	C(CH(CH ₃) ₂)	2-Cl-4-F-Ph	S	2
CH	CH	N	C(CH(CH ₃) ₂)	3,4-diCl-Ph	S	2
CH	CH	N	C(CH(CH ₃) ₂)	4-F-Ph	S	1
CH	CH	N	C(CH(CH ₃) ₂)	4-Cl-Ph	S	1
CH	CH	N	C(CH(CH ₃) ₂)	2,4-diCl-Ph	S	1
CH	CH	N	C(CH(CH ₃) ₂)	4-Br-Ph	S	1
CH	CH	N	C(CH(CH ₃) ₂)	2-Cl-4-F-Ph	S	1
CH	CH	N	C(CH(CH ₃) ₂)	3,4-diCl-Ph	S	1
CH	N	CH	C(CH(CH ₃) ₂)	4-F-Ph	S	+
CH	N	CH	C(CH(CH ₃) ₂)	4-Cl-Ph	S	+
CH	N	CH	C(CH(CH ₃) ₂)	2,4-diCl-Ph	S	+
CH	N	CH	C(CH(CH ₃) ₂)	4-Br-Ph	S	+
CH	N	CH	C(CH(CH ₃) ₂)	2-Cl-4-F-Ph	S	+

X ¹	X ²	X ³	X ⁴	Ar	Y ¹	m
CH	N	CH	C(CH(CH ₃) ₂)	3,4-diCl-Ph	S	4
CH	N	CH	C(CH(CH ₃) ₂)	4-F-Ph	S	2
CH	N	CH	C(CH(CH ₃) ₂)	4-Cl-Ph	S	2
CH	N	CH	C(CH(CH ₃) ₂)	2,4-diCl-Ph	S	2
CH	N	CH	C(CH(CH ₃) ₂)	4-Br-Ph	S	2
CH	N	CH	C(CH(CH ₃) ₂)	2-Cl-4-F-Ph	S	2
CH	N	CH	C(CH(CH ₃) ₂)	3,4-diCl-Ph	S	2
N	CH	CH	C(CH(OCH ₃) (CH ₂ CH ₃))	4-Cl-Ph	S	2
N	CH	CH	C(CH(OCH ₃) (CH ₂ CH ₃))	4-Cl-Ph	S	1
CH	N	CH	C(CH(OCH ₃) (CH ₂ CH ₃))	4-Cl-Ph	S	4
CH	N	CH	C(CH(OCH ₃) (CH ₂ CH ₃))	4-Cl-Ph	S	2
CH	CH	N	C(CH(OCH ₃) (CH ₂ CH ₃))	4-Cl-Ph	S	2
CH	CH	N	C(CH(OCH ₃) (CH ₂ CH ₃))	4-Cl-Ph	S	1
N	CH	CH	C(C(CH ₃) ₃)	4-Cl-Ph	S	2
N	CH	CH	C(C(CH ₃) ₃)	3,4-diCl-Ph	S	2
N	CH	CH	C(C(CH ₃) ₃)	4-Br-Ph	S	2
N	CH	CH	C(C(CH ₃) ₃)	4-CF ₃ -Ph	S	2
N	CH	CH	C(C(CH ₃) ₃)	2-Cl-4-F-Ph	S	2
N	CH	CH	C(C(CH ₃) ₃)	2-naphthyl	S	2
N	CH	CH	C(C(CH ₃) ₃)	2,3-diCl-Ph	S	2
N	CH	CH	C(C(CH ₃) ₃)	4-CH ₃ -Ph	S	2
N	CH	CH	C(C(CH ₃) ₃)	Ph	S	2
N	CH	CH	C(C(CH ₃) ₃)	2,4-diCl-Ph	S	2



Ar	Y ¹
5-tetrazolyl	S
2-pyrrolyl	S
1,2,4-triazol-3-yl	S
1,2,3-triazol-4-yl	S
5-imidazolyl	S
4-pyrazolyl	S
5-pyrazolyl	S
(1H,4H)-5-oxo-1,2,4-triazol-3-yl	S
4-isothiazolyl	S
1,2,5-thiadiazol-5-yl	S
1,2,5-oxadiazol-5-yl	S
3-furanyl	S
1,2,3-thiadiazol-4-yl	S
1,2,3-oxadiazol-4-yl	S
4-isoxazolyl	S
3-thienyl	S
4-oxazolyl	S
4-thiazolyl	S
(5H)-2-oxo-5-furanyl	S
(5H)-2-oxo-4-furanyl	S
1,2,4-oxadiazol-5-yl	S
3-pyridyl	S
2-pyrazinyl	S
5-pyrimidinyl	S
2-indolyl	S
2-benzothienyl	S
2-benzofuranyl	S

Ar	Y ¹
4-oxo-benzopyran-2-yl	S
2-quinolinyl	S
2-benzimidazolyl	S
2-benzoxazolyl	S
2-benzothiazolyl	S
1-benzotriazolyl	CH ₂ S
thieno[2,3-b]pyridin-2-yl	S

21. (Original) A pharmaceutical composition comprising a compound of Claim 1 and a pharmaceutically acceptable carrier.

22. (Canceled)

23. (Canceled)

24. (Canceled)

25. (Canceled)

26. (Canceled)

27. (Canceled)

28. (Canceled)

29. (Canceled)

30. (Canceled)